

REMARKS

Summary of the Office Action

In the Office Action dated July 8, 2002, Figures 10 and 11 are objected to for not being designated by a legend such as --Prior Art-- because only that which is old is allegedly illustrated. The specification, claims 1-2, 4-9, and 10 are objected to because of minor informalities. Claims 1-2, 4-5, 7 and 8 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Osa et al., U.S. Patent No. 6,396,628 (hereinafter Osa). Claims 3, 6, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Osa.

Summary of the Response to the Office Action

Applicant proposes amending the drawings as shown in the Request for Approval of Drawing Changes filed concurrently herewith. Applicant has amended the specification and independent claims 1-2 to correct the informalities indicated in the Office Action. Applicant has amended independent claim 1 to differently describe the invention. Although not in response to an objection of the Office Action, Applicant has amended claim 3 to improve the form of the claim. Applicant has added dependent claims 11-14 to differently describe the subject matter of the invention. Accordingly, claims 1-14 are presently pending in this application.

The Objections to the Drawings

The drawings stand objected to because of alleged informalities.

In a Request for Approval of Drawing Changes filed concurrently herewith, Applicant proposes to amend the drawings by labeling Figures 10 and 11 as "Prior Art." Accordingly, Applicant respectfully requests that the objections to the drawings be withdrawn.

The Objections to the Specification

The specification stands objected to because of minor informalities. The Examiner is thanked for his helpful suggestions at Section 3 of the Office Action.

Applicant has amended the specification to correct the informalities indicated in the Office Action, in accordance with the comments of the Examiner. Accordingly, Applicant respectfully requests that the objections to the specification be withdrawn.

The Objections to the Claims

Claims 1-2, and 4-10 stand objected to because of minor informalities.

Applicant has amended claims 1-2 to correct the minor informalities indicated in the Office Action, in accordance with the comments of the Examiner. Applicant respectfully submits that the limitations of independent claims 1 and 2 and dependent claims 4-10, as amended, clearly define the metes and bounds of these claims. Moreover, although not in response to an objection of the Office Action, Applicant has made further amendments to claims 1, 2 and 3 to improve the form of these claims. Specifically, Applicant has amended claims 1, 2 and 3 to recite --illuminating a specimen with light-- rather than “illuminating a specimen with the light.” Accordingly, Applicant respectfully requests that the objections to independent claims 1 and 2, and dependent claims 4-10 be withdrawn.

The Rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a)

Claims 1-2, 4-5, 7 and 8 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Osa. Claims 3, 6, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Osa.

Applicant respectfully submits that Osa should not be considered as prior art in the present application under any subsection of 35 U.S.C. § 102 or 35 U.S.C. § 103. On December 27, 2000, Applicant filed a Claim for Priority and a Certified copy of Japanese Patent Application No. 11-374448 which was filed in Japan on December 28, 1999. Pursuant to 37 C.F.R. § 1.55(a), Applicant submits concurrently herewith a verified translation of Japanese Patent Application No. 11-374448. The U.S. filing date of Osa is February 28, 2000 which is after the priority date to which this application is entitled. Accordingly, Applicant respectfully submits that Osa should not be considered as prior art in the present application under any subsection of 35 U.S.C. § 102 or 35 U.S.C. § 103.

In the event that the Examiner might be relying on the August 28, 1998 PCT International Application filing date, to which Osa claims priority under 35 U.S.C. § 120, Applicant submits that, according to MPEP § 1896, “[r]egardless of when the application being examined was filed, the effective date as a reference of a patent which has issued from a 35 U.S.C. § 111(a) application is always its earliest effective filing date, excluding any international filing dates.” The PCT International Application published as document No. WO99/12068 on March 11, 1999. Applicant is submitting a copy of this PCT publication in an Information Disclosure Statement filed concurrently herewith.

In view of the foregoing remarks, Applicant respectfully submits that the rejections of claims 1-2, 4-5, 7 and 8 under 35 U.S.C. § 102(e) and claims 3, 6, 9 and 10 under 35 U.S.C. §

103(a) should be withdrawn for at least the reason that Qsa no longer qualifies as prior art against this application. Nevertheless, even if Qsa did qualify as prior art, the instant invention as claimed differs from the Qsa arrangement, as described below.

The Rejection of Claim 1 under 35 U.S.C. § 102(e)

Independent claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Qsa.

Applicant has amended claim 1 to describe differently the invention.

Independent claim 1, as amended, recites a stereomicroscope combination that includes an illumination unit including a shield element, a fitting member, a first condenser lens, a second condenser lens, and at least a low-magnification objective lens and a higher-magnification objective lens in an arrangement where the “first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element,” and a “second condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said high-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element, and wherein the position conjugate to the entrance pupil of said low-magnification objective lens formed by said first condenser lens and the position conjugate to the entrance pupil of said higher-magnification objective lens formed by said second condenser lens are substantially same.” Applicant respectfully submits that Qsa does not teach or suggest the claimed stereomicroscope combination including at least these particular features.

According to the arrangement of the above-cited elements of the claimed stereomicroscope combination, the shield element is disposed at a predetermined position on the

optical axis, independently of which of the high-magnification objective lens and the low-magnification objective lens is selected. On the contrary, in the illumination device of Osa, a position conjugate to a pupil of each objective lens displaces in accordance with changeover between a low-magnification objective lens and a high-magnification objective lens. Accordingly, as illustrated in Figures 31 and 32, in the illumination device of Osa, light shield members 74a and 74b have to be displaced on the optical axis in accordance with replacement of the objective lens.

In view of the foregoing remarks, Applicant respectfully asserts that Osa does not teach or suggest each feature of independent claim 1. As pointed out in MPEP § 2131, “[to] anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art of reference. Verdegaal Bros. V. Union Oil Co. Of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).” Thus, Applicant respectfully submits that claim 1, as amended, is in condition for allowance as not being anticipated by Osa. Accordingly, Applicant respectfully requests that the rejections of claim 1 under 35 U.S.C. 102(e) be withdrawn.

Furthermore, Applicant respectfully submits that claims 4-5, 7 and 8 should be allowed at least because of their dependence upon allowable claim 1. Accordingly, Applicant respectfully requests that the rejections of claims 4-5, 7 and 8 under 35 U.S.C. 102(e) be withdrawn.

The Rejection of Claim 2 under 35 U.S.C. § 102(e)

Independent claim 2 stands rejected under 35 U.S.C. §102(e) as being anticipated by Osa. Applicant respectfully traverses this rejection as follows.

Independent claim 2 recites a stereomicroscope combination that includes an illumination unit including a shield element, a fitting member, a first condenser lens, and at least a low-magnification objective lens and a high-magnification objective lens in an arrangement where the “shield element is disposed in a position of an entrance pupil or in the vicinity of this entrance pupil of said high-magnification objective lens as said objective lens fitted to said fitting member” and “said first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element.” Applicant respectfully submits that Qsa does not teach or suggest the stereomicroscope combination of claim 2 including at least these particular features.

According to the arrangement of the above-cited elements of the stereomicroscope combination of claim 2, the shield element is disposed at a predetermined position on the optical axis, independently of which of the high-magnification objective lens and the low-magnification objective lens is selected. On the contrary, in the illumination device of Qsa, a position conjugate to a pupil of each objective lens displaces in accordance with changeover between a low-magnification objective lens and a high-magnification objective lens. Accordingly, as illustrated in Figures 31 and 32, in the illumination device of Qsa, light shield members 74a and 74b have to be displaced on the optical axis in accordance with the objective lens.

In view of the foregoing remarks, Applicant respectfully asserts that Qsa does not teach or suggest each feature of independent claim 2. Thus, Applicant respectfully submits that claim 2 is in condition for allowance as not being anticipated by Qsa. Accordingly, Applicant respectfully requests that the rejections of claim 2 under 35 U.S.C. 102(e) be withdrawn.

The Rejection under 35 U.S.C. § 103(a)

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Osa.

Applicant respectfully traverses this rejection as follows.

Independent claim 3 recites a stereomicroscope combination that includes an illumination unit including a shield element, a zoom lens, and an objective lens in an arrangement where the “shield element is disposed in a position conjugate to an entrance pupil or in the vicinity of this entrance pupil of said objective lens when said zoom lens exhibits a lowest magnification.” Applicant respectfully submits that Osa does not teach or suggest the claimed stereomicroscope combination including at least these particular features.

According to the arrangement of the above-cited elements of the stereomicroscope combination of claim 3, the shield element is disposed at a predetermined position on the optical axis. On the contrary, as discussed above, in the illumination device of Osa, a position conjugate to a pupil of each objective lens displaces in accordance with changeover between a low-magnification objective lens and a high-magnification objective lens. Accordingly, as illustrated in Figures 31 and 32, in the illumination device of Osa, light shield members 74a and 74b have to be displaced on the optical axis depending on the objective lens.

In view of the foregoing remarks, Applicant respectfully asserts that Osa does not teach or suggest each feature of independent claim 3. As pointed out in MPEP § 2143.03, “[to] establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” Thus, Applicant respectfully submits that claim 3 is in condition for allowance as not being unpatentable over Osa. Moreover, in light of the amendments to independent claim 1 discussed

above, Applicant respectfully submits that dependent claims 6, 9 and 10 are allowable at least for the same reasons as independent claim 1, on which they depend. Accordingly, Applicant respectfully requests that the rejections of claims 3, 6, 9 and 10 under 35 U.S.C. 103(a) be withdrawn.

The Addition of New Dependent Claims 11-14

Applicant has added dependent claims 11-14 to differently describe the subject matter of the invention.

Applicant respectfully submits that the newly added dependent claims 11-14 are allowable at least because of their respective dependence upon allowable claims 1 and 2. Accordingly, Applicant respectfully requests entry and allowance of the newly added dependent claims 11-14.

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of this application, withdrawal of all rejections and objections and the timely allowance of all pending claims 1-14. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.


Attached hereto is a marked-up version of the changes made by the current amendment. The attachment is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.R.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully Submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE**IN THE SPECIFICATION:**

The specification has been amended as follows:

The paragraph beginning at page 26, line 7 has been replaced with the following paragraph:

-- What is characteristic of the stereomicroscope in a second embodiment is that when the high-magnification objective lens is fitted, the condenser lens is not disposed between the specimen and the deflection mirror, and, only when the low-magnification objective lens is fitted, a condenser lens 24 is disposed on the optical axis 70. The condenser lens 24 is mounted on the same slide mechanism 74 as in the first embodiment and is set on and off the optical axis 70 by sliding the lever 10. Further, in the stereomicroscope in the second embodiment, the deflection mirror [24] 23 does not incorporate the light shielding function, [an] and a stretchable light shielding plate 21 is disposed between the deflection mirror [24] 23 and the field lens 27. Configurations other than this are the same as those in the stereomicroscope in the first embodiment, and the repetitive explanations thereof are omitted. --

The paragraph beginning at page 26, line 24 has been replaced with the following paragraph:

-- In the second embodiment, the following is the reason why it is taken such a structure that the condenser lens is not disposed between the specimen and the deflection mirror when the high-magnification objective lens is fitted. As explained in the first embodiment, the entrance pupil of the high-magnification objective lens exists closer to the light source than the specimen

surface and, even when the condenser lens is not provided, exists in the vicinity of the deflection mirror 23. Hence, the field lens 27 is designed so as to form an image of the light source 1 in the position of the entrance pupil of the high-magnification objective lens, whereby the image can be projected on the entrance pupil of the high-magnification objective lens even if no condenser lens is provided. Further, an aperture angle of the image of the light source 1 is determined by F-number of the field lens, and hence, if the aperture angle is set large by decreasing a focal length of the field lens, the aperture angle of the image of the light source 1 can be set equal to or greater than the aperture angle of the high-magnification objective lens even when there is not the condenser [lens] lens. Accordingly, the second embodiment takes an option that the condenser lens is not used when fitting the high-magnification objective lens by designing the field lens [29] 27 in the way described above. --

The paragraph beginning at page 32, line 2 has been replaced with the following paragraph:

-- Note that the distance between the specimen setting board 60 and the deflection mirror 23 is reduced for thinning the base 51, and therefore the entrance pupil of the high-magnification objective lens is positioned closer to the light source 1 than the deflection mirror 23 in the stereomicroscope in the second embodiment. For this reason, the stretchable light shielding plate 21 is used. Depending on some of the high-magnification objective lenses, however, the position of the entrance pupil becomes different, so that the position of the entrance pupil may be set at the reflecting surface of the deflection mirror 23. In this case, the deflection mirror 7 with the light shielding function in the first embodiment may be used [s] as the deflection mirror 23. --

The paragraph beginning at page 39, line 13 has been replaced with the following paragraph:

-- According to a preferred mode of the present invention, it is feasible to provide the stereomicroscope capable of forming the [mage] image of the light source at the entrance pupil of the objective lens or in the position conjugate to the entrance pupil thereof, and therefore performing the bright and uniform transmission illumination. --

IN THE CLAIMS:

Claims 1-3 are amended as follows:

1. (Amended) A stereomicroscope comprising:

an illumination unit for illuminating a specimen with [the] light;

a specimen setting board; and

a fitting member for fitting an objective lens, said illumination unit, said specimen setting board and said fitting member being disposed in sequence on an optical axis,

wherein one of a predetermined a low-magnification objective lens and a higher-magnification objective lens than said low-magnification objective lens [can be] is selected and fitted as said objective lens to said fitting member,

said illumination unit includes a light source, a shield element for cutting off partially light beam emitted from said light source, first and second condenser lenses for converging the light beam passing said shield element on the specimen, and a mechanism for selecting one of said first and second condenser lenses and disposing said selected condenser lens on the optical axis,

said first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element, [and]

said second condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said high-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element, and

wherein the position conjugate to the entrance pupil of said low-magnification objective lens formed by said first condenser lens and the position conjugate to the entrance pupil of said higher-magnification objective lens formed by said second condenser lens are substantially same.

2. (Amended) A stereomicroscope comprising:
an illumination unit for illuminating a specimen with [the] light;
a specimen setting board; and
a fitting member for fitting an objective lens, said illumination unit, said specimen setting board and said fitting member being disposed in sequence on an optical axis,

wherein one of a predetermined a low-magnification objective lens and a higher-magnification objective lens than said low-magnification objective lens [can be] is selected and fitted as said objective lens to said fitting member,

said illumination unit includes a light source, a shield element for cutting off partially light beam emitted from said light source, a first condenser lens for converging the light beam passing said shield element on the specimen, and a mechanism for moving said first condenser lens on and off the optical axis,

said shield element is disposed in a position of an entrance pupil or in the vicinity of this entrance pupil of said high-magnification objective lens as said objective lens fitted to said fitting member,

said first condenser lens exhibits an optical characteristic of setting a position conjugate to an entrance pupil of said low-magnification objective lens fitted to said fitting member in a position of said shield element or in the vicinity of said shield element.

3. (Amended) A stereomicroscope comprising:
- an illumination unit for illuminating a specimen with [the] light;
 - a specimen setting board;
 - a fitting member for fitting an objective lens; and
 - a zoom lens, said illumination unit, said specimen setting board, said fitting member and said zoom lens being disposed in sequence on an optical axis,
- wherein said zoom lens includes a movable lens movable in a direction of the optical axis in order to change a magnification,
- said illumination unit includes a light source, and a shield element for cutting off partially light beam emitted from said light source, and
- said shield element is disposed in a position conjugate to [the] an entrance pupil or in the vicinity of this entrance pupil of said objective lens when said zoom lens exhibits [the] a lowest magnification.